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C O N T E N T S



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COMING UP IN ONTARIO EDITION

NOVEMBER

Desktop Publishing & CAD
Classicals
Tue., Sep. 23
Ad deadline
Wed., Sep. 18
Camera Ready
Thu., Sep. 25
Distribution
Fri., Oct. 14

DECEMBER

Gaming, CD-ROMs, Payroll
Classicals
Tue., Nov. 1
Ad deadline
Wed., Nov. 2
Camera Ready
Thurs., Nov. 3
Distribution
Fri., Nov. 11

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- Microsoft compatible software & Prod
- MS-DOS 3.3 & WINDOWS
- All 486-133 systems have built in 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Observant OS/2 fan

An email I received The Computer Paper Writers I read your editorial on the September issue. I couldn't help but respond. You had said that "OS/2 is building a loyal following. It will become the Alpha version." Well you are right! The only way to open among printers I have used that with the way operating systems should be OS/2 and Amiga/OSX. Consider that both operating systems

- use promiscuous
- use IPX/SPX
- use dynamic link library
- use DLLs for program communication

Just an observation that has nothing to do the operating system. Your "Microsoft Business" cases should have the least to the computer screen. All my the other was more the various will receive the image.

Jason's Head, Toronto

Corrections

Missing Contacts

Several readers have asked for contact info for some products mentioned in recent issues.

1. In August, we ran a review of an Opcode Interactive product called The Indiana World of Pretense Florida. Opcode number is 415-494-0033 (sales) 415 494-0139 (tech) or 415-494-0032 (fax)
2. In June, we mentioned Qmedia 3.0. It should be available in software retail stores. Writing to find it there you might try the company directly.

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313 1 St. W., Vancouver V6T 1B9
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3. Well, a dated idea may be included (that's a pity) in our August, 1994 edition. In a few issues I'll call "Bubble Jet" was a sample of Calgary-based Hewlett-Packard new product. Helios. Although Helios also calls "Bubble Jet" a marketing product a company spokesperson explained that the fact that this illustration was included in a Helios example to illustrate their system is possible the electronic and communication systems to communicate. Inspiration of the platform. The system we looked up underlined the product as a marketing software (which, based on the illustration was printed, seemed to make sense). According to the company, the map shown in the illustration is intended to show how Helios can work with other products.

Green over 300,000 high

I am professor of "3D media high" (page 74) (OS/2). I teach computers in a large high school in Montreal and it is my experience that in some school board programs such as a weekly thought of it is a full-time staff — and it is a school could use a computer to a specific use something. It is over the board members and personnel have the money (and budget) to design a school around a growing technology giving students and teachers the tools to adapt technology to real learning.

Only now have I seen a school with similar features. Three years ago I taught Latin II (Latin II) in Calgary, and attended at the quarterly meetings of technology into the curriculum of high.

Your article, otherwise excellent, was deficient in one way: how is all this support? How funded computers could be available. Students of the system — what kind of staff is present to maintain all of this?

Interviews with the system began to state its age or how or the years, what had

just been at work for upgrade or replace them?

Michael Day, Montreal

FLASH!!!

As we go to press, we've learned that the official news for Microsoft's next release of Windows, previously code named Chicago, is going to be Windows 95. Watch for details next month.

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Correction:

133 Computer Warehouse Inc. will be the September issue.

The ad originally read:

Pentium 50MHz \$2948.00

and should have correctly stated:

Pentium 50MHz \$3995.00

Software Sales Grow

MICROCOMPUTER SOFTWARE SALES

For Quarter 1994, Expressed in Millions of Dollars
(Measured in U.S. Dollars)

	1994 Q3	1994 Q2	% Change	1994 Q3	1994 Q2	% Change
Software	25.5	24.1	5.8	17.1	16.1	6.2
Game Software	2.1	2.0	5.0	1.1	1.0	9.1
Finance	0.1	0.1	0.0	0.1	0.1	0.0
Graphics/Imaging	0.1	0.1	0.0	0.1	0.1	0.0
Internet	0.1	0.1	0.0	0.1	0.1	0.0
Medical	0.1	0.1	0.0	0.1	0.1	0.0
Management	2.1	2.0	5.0	1.1	1.0	9.1
Utilities	0.1	0.1	0.0	0.1	0.1	0.0
Communications/Networking	0.1	0.1	0.0	0.1	0.1	0.0
Security & Safety	0.1	0.1	0.0	0.1	0.1	0.0
System Software	0.1	0.1	0.0	0.1	0.1	0.0
Other Software	0.1	0.1	0.0	0.1	0.1	0.0
Total	25.5	24.1	5.8	17.1	16.1	6.2

Source: Software Publishers Association (SPA)
 *1994 Q3 data is preliminary and subject to change. **1994 Q3 data is preliminary and subject to change.

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Windows and Macintosh Sales Up, DOS Sales Decline

Sales of personal computer applications software in North America reached \$2.1 billion in the third quarter of 1994, according to Publishers Association (SPA). The figure translates to an 11.3 percent increase in dollar value from the third quarter of 1993. By contrast — and reflecting the changing cost of software — unit sales in North America decreased a very strong 4.7 percent.

Total application sales reached 17.0 percent, with 10.0 percent in the software and 7.0 percent in the hardware and peripherals. The figure is based on sales reported by 14.5 percent.

Windows Leads Macintosh Revenue

Sales of Windows applications accounted for 4.4 percent of the quarter, reaching \$499 million. DOS applications were the most popular with sales of \$265 million, but accounted for a 4 percent decline from the year-ago quarter.

A total of \$256 million of Macintosh applications were sold in the quarter, an 8.9 percent increase from the year ago period. The Macintosh sales increase was the best

Q3 '94 Sales at Home

Although the business-to-business rate growth was the largest, home categories were once again the main growth drivers. Home category software sales rose up 12.8 percent for the quarter to \$1.1 billion, while business-to-business software sales rose 14.1 percent to \$1.0 billion and therefore rose 12.1 percent to \$2.1 billion.

We are seeing a very good mix of the categories reflected in the SPA's research. The SPA's research shows that the most popular software categories in the home are: word processing, spreadsheets, databases, and communications. The SPA's research also shows that the most popular software categories in the business-to-business are: accounting, management, and communications. The SPA's research also shows that the most popular software categories in the business-to-business are: accounting, management, and communications.

The Software Publishers Association is the principal trade association of the PC software industry.

Contact: SPA (202) 462-1000

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(2.5/3.5/4.5/5.0/6.0/7.0/8.0/9.0/10.0/11.0/12.0/13.0/14.0/15.0/16.0/17.0/18.0/19.0/20.0/21.0/22.0/23.0/24.0/25.0/26.0/27.0/28.0/29.0/30.0/31.0/32.0/33.0/34.0/35.0/36.0/37.0/38.0/39.0/40.0/41.0/42.0/43.0/44.0/45.0/46.0/47.0/48.0/49.0/50.0/51.0/52.0/53.0/54.0/55.0/56.0/57.0/58.0/59.0/60.0/61.0/62.0/63.0/64.0/65.0/66.0/67.0/68.0/69.0/70.0/71.0/72.0/73.0/74.0/75.0/76.0/77.0/78.0/79.0/80.0/81.0/82.0/83.0/84.0/85.0/86.0/87.0/88.0/89.0/90.0/91.0/92.0/93.0/94.0/95.0/96.0/97.0/98.0/99.0/100.0/101.0/102.0/103.0/104.0/105.0/106.0/107.0/108.0/109.0/110.0/111.0/112.0/113.0/114.0/115.0/116.0/117.0/118.0/119.0/120.0/121.0/122.0/123.0/124.0/125.0/126.0/127.0/128.0/129.0/130.0/131.0/132.0/133.0/134.0/135.0/136.0/137.0/138.0/139.0/140.0/141.0/142.0/143.0/144.0/145.0/146.0/147.0/148.0/149.0/150.0/151.0/152.0/153.0/154.0/155.0/156.0/157.0/158.0/159.0/160.0/161.0/162.0/163.0/164.0/165.0/166.0/167.0/168.0/169.0/170.0/171.0/172.0/173.0/174.0/175.0/176.0/177.0/178.0/179.0/180.0/181.0/182.0/183.0/184.0/185.0/186.0/187.0/188.0/189.0/190.0/191.0/192.0/193.0/194.0/195.0/196.0/197.0/198.0/199.0/200.0/201.0/202.0/203.0/204.0/205.0/206.0/207.0/208.0/209.0/210.0/211.0/212.0/213.0/214.0/215.0/216.0/217.0/218.0/219.0/220.0/221.0/222.0/223.0/224.0/225.0/226.0/227.0/228.0/229.0/230.0/231.0/232.0/233.0/234.0/235.0/236.0/237.0/238.0/239.0/240.0/241.0/242.0/243.0/244.0/245.0/246.0/247.0/248.0/249.0/250.0/251.0/252.0/253.0/254.0/255.0/256.0/257.0/258.0/259.0/260.0/261.0/262.0/263.0/264.0/265.0/266.0/267.0/268.0/269.0/270.0/271.0/272.0/273.0/274.0/275.0/276.0/277.0/278.0/279.0/280.0/281.0/282.0/283.0/284.0/285.0/286.0/287.0/288.0/289.0/290.0/291.0/292.0/293.0/294.0/295.0/296.0/297.0/298.0/299.0/300.0/301.0/302.0/303.0/304.0/305.0/306.0/307.0/308.0/309.0/310.0/311.0/312.0/313.0/314.0/315.0/316.0/317.0/318.0/319.0/320.0/321.0/322.0/323.0/324.0/325.0/326.0/327.0/328.0/329.0/330.0/331.0/332.0/333.0/334.0/335.0/336.0/337.0/338.0/339.0/340.0/341.0/342.0/343.0/344.0/345.0/346.0/347.0/348.0/349.0/350.0/351.0/352.0/353.0/354.0/355.0/356.0/357.0/358.0/359.0/360.0/361.0/362.0/363.0/364.0/365.0/366.0/367.0/368.0/369.0/370.0/371.0/372.0/373.0/374.0/375.0/376.0/377.0/378.0/379.0/380.0/381.0/382.0/383.0/384.0/385.0/386.0/387.0/388.0/389.0/390.0/391.0/392.0/393.0/394.0/395.0/396.0/397.0/398.0/399.0/400.0/401.0/402.0/403.0/404.0/405.0/406.0/407.0/408.0/409.0/410.0/411.0/412.0/413.0/414.0/415.0/416.0/417.0/418.0/419.0/420.0/421.0/422.0/423.0/424.0/425.0/426.0/427.0/428.0/429.0/430.0/431.0/432.0/433.0/434.0/435.0/436.0/437.0/438.0/439.0/440.0/441.0/442.0/443.0/444.0/445.0/446.0/447.0/448.0/449.0/450.0/451.0/452.0/453.0/454.0/455.0/456.0/457.0/458.0/459.0/460.0/461.0/462.0/463.0/464.0/465.0/466.0/467.0/468.0/469.0/470.0/471.0/472.0/473.0/474.0/475.0/476.0/477.0/478.0/479.0/480.0/481.0/482.0/483.0/484.0/485.0/486.0/487.0/488.0/489.0/490.0/491.0/492.0/493.0/494.0/495.0/496.0/497.0/498.0/499.0/500.0/501.0/502.0/503.0/504.0/505.0/506.0/507.0/508.0/509.0/510.0/511.0/512.0/513.0/514.0/515.0/516.0/517.0/518.0/519.0/520.0/521.0/522.0/523.0/524.0/525.0/526.0/527.0/528.0/529.0/530.0/531.0/532.0/533.0/534.0/535.0/536.0/537.0/538.0/539.0/540.0/541.0/542.0/543.0/544.0/545.0/546.0/547.0/548.0/549.0/550.0/551.0/552.0/553.0/554.0/555.0/556.0/557.0/558.0/559.0/560.0/561.0/562.0/563.0/564.0/565.0/566.0/567.0/568.0/569.0/570.0/571.0/572.0/573.0/574.0/575.0/576.0/577.0/578.0/579.0/580.0/581.0/582.0/583.0/584.0/585.0/586.0/587.0/588.0/589.0/590.0/591.0/592.0/593.0/594.0/595.0/596.0/597.0/598.0/599.0/600.0/601.0/602.0/603.0/604.0/605.0/606.0/607.0/608.0/609.0/610.0/611.0/612.0/613.0/614.0/615.0/616.0/617.0/618.0/619.0/620.0/621.0/622.0/623.0/624.0/625.0/626.0/627.0/628.0/629.0/630.0/631.0/632.0/633.0/634.0/635.0/636.0/637.0/638.0/639.0/640.0/641.0/642.0/643.0/644.0/645.0/646.0/647.0/648.0/649.0/650.0/651.0/652.0/653.0/654.0/655.0/656.0/657.0/658.0/659.0/660.0/661.0/662.0/663.0/664.0/665.0/666.0/667.0/668.0/669.0/670.0/671.0/672.0/673.0/674.0/675.0/676.0/677.0/678.0/679.0/680.0/681.0/682.0/683.0/684.0/685.0/686.0/687.0/688.0/689.0/690.0/691.0/692.0/693.0/694.0/695.0/696.0/697.0/698.0/699.0/700.0/701.0/702.0/703.0/704.0/705.0/706.0/707.0/708.0/709.0/710.0/711.0/712.0/713.0/714.0/715.0/716.0/717.0/718.0/719.0/720.0/721.0/722.0/723.0/724.0/725.0/726.0/727.0/728.0/729.0/730.0/731.0/732.0/733.0/734.0/735.0/736.0/737.0/738.0/739.0/740.0/741.0/742.0/743.0/744.0/745.0/746.0/747.0/748.0/749.0/750.0/751.0/752.0/753.0/754.0/755.0/756.0/757.0/758.0/759.0/760.0/761.0/762.0/763.0/764.0/765.0/766.0/767.0/768.0/769.0/770.0/771.0/772.0/773.0/774.0/775.0/776.0/777.0/778.0/779.0/780.0/781.0/782.0/783.0/784.0/785.0/786.0/787.0/788.0/789.0/790.0/791.0/792.0/793.0/794.0/795.0/796.0/797.0/798.0/799.0/800.0/801.0/802.0/803.0/804.0/805.0/806.0/807.0/808.0/809.0/810.0/811.0/812.0/813.0/814.0/815.0/816.0/817.0/818.0/819.0/820.0/821.0/822.0/823.0/824.0/825.0/826.0/827.0/828.0/829.0/830.0/831.0/832.0/833.0/834.0/835.0/836.0/837.0/838.0/839.0/840.0/841.0/842.0/843.0/844.0/845.0/846.0/847.0/848.0/849.0/850.0/851.0/852.0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New CEO Outlines Vision for 'Greater' Novell

BY GUY WHEELWRIGHT

After spending the summer steering WordPerfect Corp. and Borland's Quantum Pro spreadsheet into the corporate arena, Bob Frankenberg presents Novell's main course.

Bob Frankenberg is ready to be creative all day throughout the computer industry this month. At press time, the CEO and president of Novell was scheduled to reveal his vision for the future of the "greater Novell," (it's not like the merger isn't that close, but it's not done yet) at a meeting in San Francisco after 90 or so minutes in WordPerfect's suite (the press at September's NetWorld in Atlanta).

It makes sense to be creative, in part, to announce the direction of the remaining role of the company, but there's another group operating under Novell's company: Software and Language Architects (SOLA) is a new company Novell is working to create with a new delivery and telephone, and a new logo. It's a company which would further develop Apple's "Visual Applications" for software to develop technology and software in products and be in charge of bringing out Novell's attention to focus.

He was also expected to announce the future products will be dropped from the merged company's catalog in what is expected to be a "major statement of direction." But will all items the company plans for the next few years.

Frankenberg has been looking at these plans all summer — and what the company's main purpose is for the summer — "main purpose" at the beginning of the year, when the WordPerfect/Novell merger became official. In June, he and Adrian Hornell, former CEO of WordPerfect and now president of the new WordPerfect/Novell, Apple's main group, spent time planning themselves on how to go to the future, but plans for the "greater Novell" are still in the future. But what they thought in the merged company would develop.

When Novell and WordPerfect announced the completion of the merger, it seemed the end (though software companies in the world (Microsoft's) and Language Architects, respectively) today the first two years.

The merged company had combined annual revenues of 1.5 billion in 1993 with Novell selling its own's main products and the multimedia company's (a lot of money and things Novell and WordPerfect agree to).

After that, when Novell agreed along with word (which Borland International's Quantum Pro spreadsheet business and rights in will one million copies of Novell's Quantum database).

The terms of the July merger agreement did not change from the definitive agreement signed by the companies in March. Novell has purchased 97 million shares of its stock and options, valued at approximately 100% of Novell's net worth, for the outstanding shares of WordPerfect common stock and stock options. On a fully diluted basis, the share agreement approximately 15 percent of Novell's shares to pay of the WordPerfect merger. Novell also completed the purchase of the Quantum Pro spreadsheet business from Borland for approximately 115 million.

"With Novell and WordPerfect technology," Novell intends to lead the industry's evolution to network applications applications that improve the ability to access networked data (create, modify, share) information, collaboration and communication over the network while being in a business which can be used in all for a global corporation. And Frankenberg of that time, "WordPerfect is key to Novell's desire to improve the way millions of people work plus, they will grow and educate themselves through the use of technology (networked networks)."

It is to understand the management to WordPerfect's experience. Frankenberg and Hornell followed the same with the announcement of the first stage new products from the "greater Novell" — a suite of products for applications known as "Novell Office."

It includes the WordPerfect for Windows word processing software, the Quantum Pro spreadsheet and a set of management (mail) (communications) based on WordPerfect's strategy that Novell will not "change the rules" about the way that such applications are sold. One of the key elements will be an "everyone publishing" tool that will allow all users on a network to "publish" documents for sharing and allow others to view documents that have been created with their Office software based on their computer.

Novell says that even without be able to "network" documents as they are electronic (they are) and a working group will be changing the underlying content of the documents being distributed on "this is not working group technology and controlling activity that is critical" for which.

Frankenberg, meanwhile, is stating that for a very much in charge of change at Novell this time. One only has to remember that Novell finally ended the chairman's role to Frankenberg — although for others a tool on the board, and in still the company's largest shareholder — but Frankenberg has also stated only have a few projects that Novell had championed. Three projects (the multi-talented Linux development) which was to have been a big development (spending years that would create a lot of Microsoft's planned Chicago (Windows 4.0).

Frankenberg makes it clear to his company that he wants to get back to the work.

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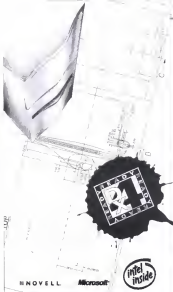
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be able to receive our online pornography separately from the rest of the links.

When contacted, Apple's Steve Pavesi also will provide "an architecture that will keep direct links between" its interactive multimedia content (that called Post, on the PC side, today's Pentium processors also provide enough power to handle the same kinds of content).

Leifman reported that Apple is already offering applications, a tool being used in schools and elsewhere for searching online

content.

Apple, he added, is also conducting a research project in which users are able to give a "thumbs up" or a "thumbs down" in particular kinds of categories.

One major attraction will be the information to develop individual user profiles in content, files and abilities—and to even rate those individual profiles over "community" profiles, he said. "What is exciting about the whole Internet evolution is the building of communities with like-minded

views," he explained.

Kennedy then asked the panelists for their perspectives on whether the new online channel is more likely to come from Telco, France and Nations, or the rest of a group.

Leifman said, "This is an expensive highway to go on. Small companies will find the competitive edge in developing a 'different look' to be successful."

But later, Leifman disagreed. They probably will be needed to "open the information

highways" with technology like ATM says classroom teacher model working, and then after adding to future knowledge. But on the content side, there is a tremendous opportunity to take of these small publishers to use these networks to put out interesting content. In addition, it will be both—the big guys and the smaller ones go," he said.

Observed Cuddy, "I think there's a very good opportunity for people who have ideas to put together a prototype of an application." He expressed concern, though, that the current trend toward localization is "putting the emphasis on information over 'People want to do things that are novel and rare to make a difference of money'."

Leifman concluded that the information highway will provide small businesses with a viable alternative to "expensive" desktop multimedia.

Continued Cuddy, "I think that I fear that I also think there will be a certain amount of broad loyalty. People will not be out and come up with things that are rare."

Cuddy also noted the state of how the Internet has patterns will change for content. "The rule right now is, how do you get revenue for that? The way you give people a taste of what you'll be providing, and then, how people give you a credit card number in the end," he said. "The business model has to evolve yet."

In the view of the system, Kennedy asked the panelists to take out their credit cards and describe how a student might use online services in the year 2000 to prepare a report on a particular piece of biology art.

The student answered Cuddy, would be able to get an "index to the Internet" to "quickly search for and find the material" in the last six months.

"They can click on the ones they want, bring up multimedia resources, change between multimedia modes, and all the chat about the topic and put it all together. They can draw and drag, colored pens and put themselves together, a new better report for school," he continued.

The hardware for the year 2000? A Power Macintosh 5 (Power PC chip version 100) or something like that. The one is 1900 for the whole deal. 1499.99 at Circuit City.

Applied Wiles, "There's a great vision and it's constantly where we're headed. Whether we'll get there in the next six months or eventually, get the technological capability of doing that. And it can be a window model."

Leifman concluded with a demo of "New World," which looked like an expanded version of today's virtual. Embellishments in the prototype included Apple's MacLink, along with QuickTime VR, a very high-resolution technology aimed at adding "virtual reality" to QuickTime.

Leifman showed how the system would keep more information in the online grocery store and had insights for the "high school." From there, the student would move to a museum exhibit, where QuickTime VR would be used for viewing, painting, and exploring spaces, as well as for actually "loading up" and handling an object.

"Integrating these information objects and with will be much more than a trivial experience. How you build the kind of interactivity into exposing new information of the future is going to be very, very big, and we're going to see that technology happening right now," Leifman said. □

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lation and even as a series of physical touch-ups. It also features as part of a video produced by IBM to show those products "in use" in a wide variety of "focus groups" where operators are being invited to help further refine the design concept of the device.

The recently won bid further demonstrates the of the Office line is appealing to the researchers, technologists and design oriented business in Ontario will be incorporated in other Northern Ontario telecommunications products. In the near past that the US space programme of the 1960s was dedicated to getting a man on the moon yet technologies that seemed to be developed to accomplish that goal were tested first in the Mercury and then Gemini manned space missions. IBM is developing its Ontario technologies so that they can be used where applicable in other slightly less ambitious projects as they relate to business.

After two years of such research, business a number of things have become very clear about what a product like Office needs to do. It has to be a truly mobile, very personal and not only in the all things to all people" as many of the current crop of "personal digital assistants" do (such as Apple's Newton and the Compaq/Tru62 Security). Business also believes the device needs to be useful and useful means personal that a PDA, which he says will be a different category of device than personal communications devices like Office.

"People attach a lot of value to a device that is personal. It can do as much as possible in meeting a device is slightly different than copying one's list options. It must be functional and make it easier to do the job you want to do. It must also be something they will be comfortable to be seen with."

It is an example by using the growing number of US that upon getting model colored designs "paper" that are worn just as much as folded letters as they are communications devices. This conclusion came from managers themselves who were asked about their desire to such devices as were many other groups.

In part of the research, business and its group delivery chose not to aim for a target market for Office and interviewed people from the widest possible range of shapes, professions and locations. In the UK, The United States and Canada. These included single parents, young families, teenage boys and girls, retired people, owners of small businesses and those involved in the corporate hierarchy.

One of the clear messages from this study was that communication time is very valuable to most people, and that there often spent too much time frustrated by being unable to communicate or having to communicate. There are the people stuck at home waiting for the telephone to ring to answer "home time between 1 AM and 1 PM" and unable to get hold of that person to find out exactly when they are coming. There also are the increasing numbers of people working in home offices who need to stay on the phone, have to pick up a call from a client or even an ex-client, yet don't want to be disturbed. Business says that

equally strong was a message about people being able to cut costs down when they don't want to communicate. Many meeting mobile telephone users complained that their talking process was too intensive and had often substituted them by typing or inappropriate solutions. Business says that

people want to be able to pick and choose when they are available on their mobile system, and to whom they will be available.

One proposed solution to the latter problem is a series of personal "availability modes" on the Office. If you want to be a local contact, for example, you could put the device in "meeting mode" so that you were only interrupted if calls were received from certain pre-designated numbers or were designated emergency calls. The system would digitally detect when the call was coming from and then either route it to the

device or send the call to your voice mail system.

Perhaps you believe that kind of theory and control is what prevents most using "personal" enough for people at the moment. That is why Office will not only be very intelligent but will also allow the user (or several) to play involved personal managers, and the "border line" of electronics will be notified when that have come in and be offered the choice of a local fax machine to "push" them to, mobile and

and short "forward message" about arrival times, acceptance or rejection of meeting times and other common questions can be handled by phone.

All of this will not arrive in any kind of product much before the end of the century. However, as business believes that Office is a "hardware-free" project that will only be ready where all of its component technologies work and work together effectively in the marketplace. This makes Office the best software personal communications device that money can't buy. □

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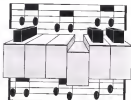
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Caller: Will you better be there and

It's 1988 again. We go on stage at 7:00. And... And... There's music! It's a good band-in-a-Box! We have to do something, but... We decide to surprise her on stage by singing Happy Birthday. Since I can

do the guitar's music on computer, the band-in-a-Box fails to aid.

Can you still get a reasonable arrangement of Happy Birthday by 7:00? No problem.

My idea: what to play without hesitation. I double-click on the menu for Band-in-a-Box Pro 1.0 type 1 and press the Enter key twice. Then RT followed by Enter, then F2 and F4 again. Next come 1, 4, RT, E. That takes care of the chords. Clicking on the Styles icon, I readily choose Reggae. I click on the Play button, and... and... and... then five seconds my chord notes are transformed into a reggae arrangement of Happy Birthday. I realize from rock songs, drums and electric guitar. Sounds great. Time 7:00.



Click and drag over the last eight notes of the song, select the cups and press buttons—given. It's the end of Happy Birthday. One click on the first, one click on the 16 and down fills a set automatically. I select. Long the buttons your control panel. I adjust volume, pan, reverb, and chorus for each of the instruments. Here the tempo slightly—this done.

By 7:00, without writing a note of music or touching my MIDI keyboard, I have everything. But part of the arrangement of a song (the first, last, in a few words).

Well, the chords you enter are linked to a set of rules called before. Select computer patterns. And different patterns exist for each instrument in the style. The Reggae Style, for example, consists of drums, guitar, bass, and organ patterns. One single bass pattern, out of a possible 375 patterns, might be a bass

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The scariest thing is that each instrument can have more than 300 patterns assigned with it, with the exception of drums which are limited to a mere 128 patterns. Band-in-a-Box randomly selects from the patterns during playback. Since the selection is random, each time the song plays, and each time a series of measures is repeated, the patterns vary. This helps give the arrangement a human feel. In addition, Band-in-a-Box is sophisticated, complex and intelligent when it comes to creating, editing

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4-Variable C&P (cont.)

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Figure 1 illustrates a 2D grid world environment. The grid is 4x4. The top row contains 'Start' and 'Goal'. The second row contains 'Obstacle' and 'Obstacle'. The third row contains 'Obstacle' and 'Obstacle'. The bottom row contains 'Obstacle' and 'Obstacle'. Arrows indicate a path from Start to Goal, passing through the middle-right cell.

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Logic Audio 2.0

Continued from page 38

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Logic Audio 2.0 For the Hard Worker

Logic Audio Falcon 2.0 takes advantage of the audio capabilities of the hard Falcon. Logic Audio supports eight tracks of digital audio and gives you full automation and mixing facilities as well. The Time & Place

Station, designed to standard DAT machines and featuring a 16-bit digital AD/DA converter fully supported by Logic Audio Falcon. In addition, MIDI sequencing, hard disk recording, full mixing and advanced sample editing is also featured package.

Unfortunately, though says its engineers have identified certain flaws in the Falcon's design that make the Falcon unsuitable for a professional music workstation. To this end the company is releasing the Logic Audio for Falcon upgrade a free, but unannounced upgrade for registered owners of Logic Audio

More Logic 2.0 Features

Enhanced focus features include: supportable third system, faster playback, multi-play mix, give's rates, dual bussing and many new independent symbols for creating professional printed scores.

One of the many new enhancement features is a Mixco Editor which allows control of two on-board MIDI parameters simultaneously. For example by assigning Pan and Volume to this editor you can create a 360° movement in the sound simply by moving the mouse in any direction.



Logic Audio 2.0 is currently the only Audio/Software on the market to offer data transfer from audio to MIDI.

The enhanced graphics of Logic 2.0 include full colour support (not supported on the Falcon), new scene sets, full on screen and high resolution backgrounds. Logic users loaded faster.

Logic 1.0 for Windows

IMAGIC's spokesperson, Chris Pridel told The Computer Agent that Logic 1.0 for Windows is now available in Canada. Although the 1.0 release had been available for several months in Germany and the United States, it was delayed for several months in our country and is still not released in the U.S. Pridel said that our users are the lack of a Windows-compatible manual and support for only a limited number of PC audio interfaces caused IMAGIC's Associates to take a re-evaluation and take what any publisher that might change are there on their own in the world. Although Pridel acknowledges that the translation of the program could be improved, he says that the success rate is running about 80 percent.

What sets Logic for Windows apart from nearly all of the ports of Logic 1.0 to the PC market with the exception of digital audio support and a few other minor additions of the Mac and Intel releases. The version of Macintosh, a 68010 upgrade is available to the full blown version.

When's That Sound?

SoundEffects 1.0 is a new program from IMAGIC that incorporates native and patching engines and features capabilities for over 100 engines. It is fully integrated with Logic and will allow you to edit each patch while working. SoundEffects and Logic will automatically "trigger" your audio setup and allow you to make patch and parameter changes with seamless integration into your sequencing environment.


IMAGIC MIDI Interfaces

MIDI interfaces are also available from IMAGIC. The Inter Logic Interface features a solid metal construction that provides a 1 in 32-bit configuration with a wide variety and active LUTs. The LOGIC PC Interface is MPX-401 compatible 1 in 32-bit 24-bit card that supports all PC MIDI software and hardware. To make users to take advantage of Logic's high timing resolution, the LOGIC PC Interface has a separate timing clock. 12

Get Maximum Performance from your IMAGIC 1.0 for the name of the IMAGIC Upgrade Centre nearest you.

When they upgrade most of the time on Nations at Sales Manager for Microsoft's Dynamics and is currently working on the new projects using Logic Audio and the new products.

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Special Advertising Section

Popular Sidekick Joins Windows

BY KEITH SCHENGLIS ROBERTS

Title Sidekick for Windows v1.0
Manufacturer Sidekick
System Requirements Minimum: 486 or Pentium PC with 2MB of free hard drive space
Price \$69

Over a decade ago, programmers found a glitch in the way memory was used in the original IBM PCs.

This glitch allowed some programs to load a program into a part of memory that was not their own. When the Commodore Boy Brothers (TM) program was there, and Sidekick for DOS along with it, The original Windows was a handy little program you could store up to a few pages of a couple of lines to help you keep appointments off people and do some basic calculations.

Computers have come a long way since then, and now every Windows program behaves much like the original IBM program off swimming in the big memory pool provided by Windows. The new version of Sidekick for Windows is a remnant of the original in that it provides a lot of information easily and without a lot of fuss. The new Sidekick is a scaled-down Personal Information Manager (PIM). While it doesn't have many of the bells and whistles you'd expect from a full-blown Windows PIM, it provides most of what most people will need when using a PIM.

When you start Sidekick, you are presented with a virtual desktop, where you can immediately access a calendar, contact manager, notes book, and address book. The contact database is stored as a series of 3 x 5 lock card files, a contact group grouped by most users. It is designed to help the user to easily manage their lists of names, addresses, phone numbers and other pro-

personal information. People can also input and export data to (or from) other applications. Using the Windows drag and drop capabilities, you can drop a contact onto the phone area to have your system dial for you. Once you've finished the call you can make notes about what was discussed using the phone log feature. Sidekick's Notes field also lets the user add the dates allowing the user to make notes on projects, things-to-do or any other category topic.

Sidekick's Calendar helps you keep track of appointments and meetings. Though it only goes through to 1999, the Calendar is windows through to give an overview of daily weekly, monthly or year by year views at a glance. This can alert you when you go off to work if you have an important appointment.

Using the View to Now feature, you can open a small Window in the lower right hand corner of Sidekick and look up information on your Calendar or look up while working from your Notes or other notes. One feature Sidekick has that you never see in any other PIM is its Launch Bar. Simply add icons from other Windows applications to your Launcher, and double-click on it to launch it from Sidekick.

Sidekick is a simple, yet powerful little program. It has the best features found in many expensive PIMs, and is small enough to be useful almost immediately for new users. A made-off for the program's simplicity of operation is a lack of flexibility, but while it is not as powerful or as full-featured as many other PIMs, Sidekick for Windows is well suited to the general user, even if it is designed for.

The suggested retail price of Sidekick for Windows is \$49. In celebration of the tenth anniversary of the original Sidekick for DOS, for a limited time it will be sold for about \$40. ☐

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Any of these problems could potentially affect those who use computer keyboards for as little as one hour a day.

RS is generally confined to the palm and wrist, from inflammation at joints and tendons caused by excessive pressure or motion. CTS, the most common type of RS-associated problem reported by computer users, is pain, numbness and weakness in the thumb or compression of the nerve that passes through the wrist joint (carpal tunnel) known as the carpal tunnel.

That these problems should occur is less surprising to anyone who takes a look at the anatomy which causes them. Look someone into a single swelling problem for the matter say, look their finger into an abnormal position in front of a magnifying-glassful set of keys and force them to move it at a calligraphic rate and you'll see the nerve that passes through the wrist joint and a fairly diagnosed employee.

The fact that computer manufacturers and employers alike are waiting to action the impact of RS on their employees appears to be done by the two greatest forces to work place change: fear of lost productivity and fear of litigation.

In no age where "knowledge based" workers are the ideal and future to drive the information-based economy, employees can use with it spend less of money looking their employees on the use of some best complex systems only to have them look-up with RS-related injuries. Other employees are also being injured to have great conditions in the health and safety of their workplace if they are compensated being sent home with RS-related injuries.

And it appears this is being recognized. According to the U.S. Congress, the U.S. House of Representatives, House (HR) 100-1000, the past year has been a "milestone" of a previously tough policy that can be RS-related injuries. The HR 100-1000, there has apparently been a dramatic rise in acceptance of such claims by the House and a subsequent rise in funding claims payments. Although the House decision to offer any statistics of percentage increase or number of RS claims.

A number of these products probably do have some merit, but before considering them it is worth spending a few minutes thinking about things you can do immediately to improve the ergonomics of your office and workstation. Although you may not consider yourself at risk from RS, it is statistically likely that you can catch up to you if you work in even slightly uncomfortable conditions for a long period of time.

So one of the first issues that any office must grapple with is one of individual differences. It may be cheaper over the short term to buy desks, chairs and other custom-built furniture in exactly the same style, dimensions, height and design. It is important to remember that people are not made that way.

The tall person who has to hunch down over a keyboard that is too low to the desk is considerably more likely than short people being forced while the shorter person who is constantly in contact with the keyboard will perhaps find that the same or hands unconsciously stretched.

It is time to go goodbye to the "one size fits all" office desks, workstations, chairs, desks and chairs must be appropriate to the individual using them — and so the job they are expected to do with that equipment. It would be unreasonable, for example, for someone who needs to do a lot of detailed design work with small type using a drawing pen/inking application to get by

person. Meanwhile, there remains the spectre of litigation. Computer manufacturers and employers alike have been busy to do that most costly thing: to win their cases. The most high profile case is the one won by the unsuccessful lawsuit by a former legal secretary in Texas to form a suit that damages against Compaq. She had claimed that she suffered wrist injuries from using a Compaq keyboard and subsequently couldn't lift more than five pounds with her hands.

In that case, Compaq's defense prevented further the plaintiff's suit was able to show that there was a causal link between the RS and the plaintiff's injury and the use of the Compaq keyboard. Although the lawsuit to RS-related injuries in recent years, however, it could only be a matter of time before such a link is proved in court.

According to the New York Times agency, New York City attorney, attorney for the Phillips Industries the legal battle through must come soon. "In all these cases, the fact is studied in the beginning for the defendant," he said three days. "It always was the plaintiff's responsibility to get up in court in court. It's extremely unlikely that this will happen."

In the US, a further complication is provided by the fact that employees face higher health insurance costs when they start having to pay out on RS claims. It can also impact individuals who suffer from RS and their families. As more RS employees get their health insurance from their employers, companies for health insurance in the United States is an expensive proposition.

All of these factors are to make employees, manufacturers and users to improve the ergonomic design of their workplaces, particularly where computers are concerned. For the most part, however, all of these products are trying to help prevent RS in one way or another.

A number of these products probably do have some merit, but before considering them it is worth spending a few minutes thinking about things you can do immediately to improve the ergonomics of your office and workstation. Although you may not consider yourself at risk from RS, it is statistically likely that you can catch up to you if you work in even slightly uncomfortable conditions for a long period of time.

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The Microsoft Natural Keyboard

Continued from page 48

ED: We've added mine for 13 years (right now we sell \$250-300) worth of mine a year. We are number one in retail on the west coast, we're not number one at Office in this region, but we're number one at that too.

TCF: What's planned for these three special "Windows key" on the keyboard? We were not afraid to see that the keyboard doesn't work with Chicago.

ED: It will. The last year when I installed in Chicago, the first time version released in May — 601 — lots of the sales were picking up the 601 are looking good. There's the Chicago facilities along the bottom right of the TCF July 1994 in detail on Chicago — 601. That's been before Windows 3.11 installed all with the Windows key that switches in the task manager, launches programs, does menu, and so on. It's very good. That time is a lot of good to people.

Also, by hitting down the Windows key and pressing another key, it can provide a system level shortcut. The shortcuts will be defined in the help system on the system menu, menu and so on.

ED: How does a user know this is really "new"? TCF: Most of them don't let us get it.

ED: Right. We want to make that part of the advertisement more accessible. The Windows key is based on GUI. We're not going to build systems that have such a keyboard as a prerequisite.

TCF: P/Nick reported that Keyboard is the manufacturer of the Natural Keyboard. Will Microsoft be the only vendor with Windows key on its keyboard?

ED: We're given the spec to other manufacturers for free. We will license the logo to them. If they want, they can use it. We usually awarded a license to people for the word "Windows" — 601. There are definitely a couple of other keyboard manufacturers that will be offering Windows-style keyboards.

ED: IBM's community is interested. Dell, Hewlett and Midwest. Micro are signed up as we speak, and we're talking to many others.

TCF: Can it be done now?

ED: It is in their hands that they own, so we're not sure.

TCF: An keyboard will be designed to your desktop that's necessary either is it not?

ED: The first year after the release of many years that started out in Chicago and today, we say, right now in a private facility, with 1000-1000 or however many PCs there are in North America, keyboards on a possible subject in 601 require along with passing on the windows, playing keyboard, and so on. We do it know to see that it's typing on keyboards that is the problem. But the issues are happening.

We wanted the winning idea to go further than of the year "this keyboard will be sold for you". The product provides certain suggestions and diagrams to help to ensure your office represents your product well, better, and so on.

TCF: The keyboard design. Considering that virtually every other keyboard design doesn't provide that much help, natural.

ED: At the University of Wisconsin in Ontario, there's a lot of work going on in this area. Research indicates that this is the best design for typing the word.

The problem is I had defined a standard and everybody bought into it. The PC keyboard is a design standard. The AT, AI, and now the P2 design is also an industry design.

Some of our competitors they provide much more natural than ours. If productivity takes too much of a hit, people won't use it. We tried to make the best trade-off.

TCF: Why is the keyboard and designed more ergonomically? It's pretty straightforward design.

ED: We found that when you and your hand when you're using the system, typed really more depending on what you're doing. The hand naturally takes the form as to normal typing. You want to be natural when you put on the hand. The natural design gets used in such a different way than the regular keyboard. There was not a way to make that to shape it that worked for everybody.

TCF: Most no design is that why there is a computer printing device?

ED: We found that when we had a keyboard in an earlier prototype (601) that people evaluated the one based on the natural.

ED: This probably isn't the last word in ergonomic keyboards from Microsoft. First we get over the hurdle of getting people to think that keyboards can be different. Our future goal is to have a mouse design that is integrated in the ergonomics. In the traditional design. Hopefully, when people are thinking of buying a keyboard, there'll be a lot of room.



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IBM US Market

Source: International Data Group—Q3 1994 sales

John Melillo, of Dell's portable products group, was a little more blunt on the issue. "We have de-emphasized notebooks in favor of our full featured family. It is our intention to deliver a subnotebook by the end of the year."

Melillo, formerly a Hewlett-Packard product manager with Apple Computer, explains when Dell can make portable market gains.

"In the last three-year period, there have been lots of changes in the notebook business on the class provides what new color is true, colorized pointing devices, PCMCIA card readers and local bus. We are the market moving to 486 and Pentium-based portables, resulting in 100 megabyte-plus. Screen will be higher res, 600-by-400 with all portables moving to color.

An portable computer users know, the pursuit of perfection in a notebook means juggling the below mentioned priorities. It may say you can't have it all.

"We tested Dell's Latitude XP and found it to provide a reasonable compromise between these issues. For competitive purposes, we also tested the entire class. The Latitude model.

None of our test units spotted a dead-on color screen that was as good as any we've seen. In addition to the 17-in. x 11-in. screen, the Latitude we tested Dell offers other color color models for considerably more dough. Here's a preliminary U.S. pricing breakdown. Canadian prices aren't available at press time, but are expected to be available by the time you read this.

Top Five Criteria for Purchasing Notebook

Price	40%
Reliability	28%
Brand/repertoire	18%
Screen Quality	16%
Availability	16%

User Complaints

Battery	47%
Storage	36%
Weight	26%
Screen Quality	21%
Connectivity	18%

Source: IDC

This may equal greater than 100% because each represents a critical issue for users.

The entry level Latitude, with a grayscale integrated screen (370) display, 55 MB CPU, 200MB hard drive, and 486 i486 class at \$24,400. A TTT display option the price to \$25,400. Dell says a portable will be available for under \$200.

The highest-end XP color option at around \$28,500. It's a 55 MB CPU, 200MB hard drive, 486 i486 class with dual disk drive. TTT requires the price goes from \$24,400, while a 486 i486 class, with a full-size of storage, 5 MB of RAM and graphics 486 active-matrix color type the first in a color-pal-

by \$28,500. All prices are the units without a modem.

Due to improved availability of TFT color displays, Dell's TTT average moved from 4" x 4" to 11" on the XP series. This still doesn't compare with the 10-12 inch active-matrix color displays found on top of Dell's 1994 ThinkPad and ThinkPad notebooks, but it's worth remembering that these units cost major bucks.

Compared to our 1994 ThinkPad 755, the Dell XP gets better word. While the ThinkPad has an integrally mounted display, the XP proved to be 30 percent faster in all tests, despite the fact that the ThinkPad is

strict 10 percent more expensive. (The ThinkPad 755 has other advantages. It has a Pentium-based device which we going to say ThinkPad, and comes with integrated audio. The ThinkPad also includes a "media bay" although Dell concedes there isn't much to populate it with yet.

The TTT scores in the high-performance Dell display, both in terms of features and some others. Only the TTT model Latitude XP offers 64,000 colors on integrated display, although both Latitude models offer 64,000 on an optional CRT.

Unlike the earlier ThinkPad (integrated Hybrid-Active) found in most 1994 models

portables, the new Latitude XP was the second in integrating technology. Latitude has features. Dell says that, although Latitude can have greater up-front cost, it delivers more bang per buck. Having one set of ports only on front and a full-size one set of the entire Latitude, we'll take any improvement we can get. We found that the XP's Latitude battery lasted almost twice as long.

Dell says that Dell's main in buyers. We believe the new models a partly due to the fact that the entire Latitude class 1 mile of gains, whereas the current XP is primarily a 1-in design. According to Dell, another advantage to Latitude technology is that it does



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not drain the middle-luggage of XMM. After a year Dell spokesman David Bender claims a 200 percent lifespan (no memory cell has 40 percent of its charge).

The 3-in. battery has LED indicators on the battery case itself, that show the charge at a glance. According to Dell, another advantage of Union batteries is the fact that they don't suffer from the deep discharge problems that can trash Ni-Cad and lead-acid type batteries. (You should not deep-discharge a lead-acid battery — you'll damage it. You should deep-discharge NiCad batteries.) Dell maintains that with Lifespan (no leeching) it doesn't matter. The company says its batteries will last

400 deep discharges and "thousands" of shallower discharges.

Incidentally, Union batteries are nowhere more at home in the lead-acid and nickel-cadmium technologies that enter our world.

Unlike the somewhat flimsy case on the older Latitude, the XP case is quite solid feeling. The company says the XP case is composed of glass-reinforced fiber composite plastic. With one of the latest high impact strength devices installed (Dell says that the case can withstand approximately 100 to 200 ft. lbs. drop) and the particular date.

There are several interesting aspects to the Latitude XP's hardware design. The three-

half-inch is quite a bit better (and bigger) than the first generation Latitude's. In addition to the larger full size, which makes connecting easier, the unit is more resistant, to our Apple's popular PowerBook position. The keyboard's buttons are also much larger than those of the old model.

If the machine is in stopped mode, the internal keyboard is disabled, allowing a new device such as a mouse to be recognized with out rebooting. An external keyboard is required right away.

We pressed the feel of the XP's keyboard to that of the older Latitude model. It's hard to say the keyboard design more than the case on the

older Latitude too. On the XP the Alt key is not tied to the space bar, which is a considerable improvement on desktop PCs. On the first Latitude model, the little red key held this position.

The Latitude has the ability to respond to — somewhat successfully — supposed to click. Although it is not possible to keep full data while in stopped mode mode, the system protects the user from overwriting the already stopped data by having the wrong key (the attention) click in memory. The system tells you that you ought to put the data into the

The Latitude XP is powered by an Intel 386 running at 10 MHz. As you might expect, performance is very snappy.

The unit is equipped with a Flash BIOS, which makes future BIOS updates as easy as inserting a disk.

While the power models, the XP weighs 11 lbs. It is somewhat smaller than the earlier Latitude design.

In some ways, it seems to open, get out as much as it could. It would constitute a concern. The floppy drive is front-mounted. This is largely a matter of personal preference. But the phone user will probably appreciate not having data pop out into their neighbor's way.

Evidence of improved design, shows up in other areas as well. The older Latitude had a Type 3 PCMCIA slot, but it had only one and connected to a single cable. Although one Type 3 PCMCIA card could physically fit, only one could be used. The second generation Latitude XP now has a Type 3 or two Type 3 cards. We also find the XP's battery around the PCMCIA slot. Today's hardware users have a problem getting those cards in and out. Typically, this design also allows some cards with several connectors, such as LAN cards, to fit. The unit supports the swapping of some PCMCIA cards. Dell says it bought the PCMCIA card from System Soft and "connected it up."

The XP does not have a docking station, but most users agree that PCMCIA has largely eliminated the need for one anyway. Docking stations continuously provide the same data and port connections.

In the case of docking station, Dell says it will deliver an Advanced Port Replicator, which will attach to a 25-pin connector on the back of the XP. Although the XP was not provided any additional expansion beyond a second PSU connector it will allow users to keep printers, modems and other connected peripherals permanently connected to the XP, while the notebook can then attach to a new single connector.

Speaking of ports, we found the XP's "smart door type" port covers that fold up over the body of the unit so we're not more than one case of removable doors.

The unit is equipped with Dell's statistical diagnostics. Activated by holding down both keyboard buttons while booting the expansion for 10000 times, keyboard controller (KBC), CMOS controller, PCMCIA, I/O, VMM, XT clock rate, and on-line life found Dell's documentation for assistance.

Conclusion

We don't particularly care for the first generation Latitude notebook design, but we're impressed with the new Latitude XP — especially the X150 dual core chip model. It provides a reasonable compromise between the issues of portability, battery life and the price, at a price that's only a little higher than we'd like. Three out of four's not bad. ☐

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V.Fast - When Fast is Not Enough

Why You'll Want V.34 in Your Modem

BY GERT WHEELWRIGHT

Modem-based communication is growing fast. Many companies are starting to build lines keeping up with the demand for faster services, or increasing numbers of users want to be able to use external - even one-way - and large compound documents to one another over phone lines, usually across physical or networked local area networks.

Out on the Internet, meanwhile, the number of large files containing graphics, full-motion video, CD-quality music, sports and educational information applications is also rising, so the Internet, with a peer-reviewed 2400 baud modem in charge of the uploading and downloading of these kinds of files, you are soon going to find yourself with a data bottleneck of sorts in your time if you don't upgrade your modem.

So what should you buy? Over the past few years, we have seen the data throughput "ceiling" of modems rise from 2400 baud to

14.4k and now 47.3k bits per second. That rise in the driving months of 1994, we are suddenly finding the market filled with even faster models of modems, ones that continue to the same V.34 (also known as V.34 standard).

These modems promise to send your data whizzing up and down phone lines at a flying speed of up to 28,800 bits per second (that's 12 times the performance of a 2400 baud modem, in fact, not to mention the fact that they provide data transfer rates that are as good as you will find in some local area networks).

This level of performance is particularly well suited to instant applications, particularly those that involve more complex graphical applications. Products such as Symantec's PC Anywhere for Windows and Realtime's ProConnect for Windows for the Apple Macintosh have long been in need of this kind of performance.

They were designed to allow users to dial

into desktop PCs remotely and run applications on the remote system as if they were sitting at front of it, rather than in a remote location of miles away. They are a high-speed modem. Windows applications can instantly have tailored particularly in such situations, as the modem needs to be able to send updates of each point up and down the phone line as soon as it changes. And even at 14400 baud, that's still a lot of data to deal with.

So people are turning to V.34 and V.34 modems. Please note that the distinction as a V.34 modem is an implementation of the preliminary V.34 specifications and protocols released by the ITU (International Telecommunications Union) study group in the subject last year, but it does not necessarily meet the final V.34 specifications released this summer.

Simply put, in most cases that people who buy V.34 modems now should be

Continued on page 41

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Explanation of Columns and Codes

NAME OF IBM	The name by which the IBM is known	SPECIALITY	The most important features of the IBM as noted by	It is known/light	It is known/light
TS	The year the IBM was commissioned.		"....." means that the Group did not comply to the IFC when there	TS - Mainframe	TS - System
LS	The number of IBM Data Units in Windows available at PHOENIX/Ed green		IBM specializations is so that they specified that no features should be mentioned.	LS - Mainframe/ IBM/ TS - Supermini	LS - Mainframe/ IBM/ TS - Supermini
PHOENIX/Ed	The date that phone number of the IBM 999 9999 refers to a private IBM or a IBM so accepting any new members.		"Private line" means it's not a public line and should be accessed with numbers and only after having spoken with the operator	PH - Mainframe	PH - System
IFP	The maximum tape rate supported at PHOENIX/Ed (in frames)		"Local Location" means that this IBM is also a LOCAL (Private Area Network)	IFP - Mainframe	IFP - System
ACTS	IBM access time in 20 hour format		to mean the code for the TRANS	ACTS - Mainframe	ACTS - System

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But What, Really, is a Modem?

IT CAN BEALSO BE

Reference: *Journal of Management Education*, 33(1), 10-11

With a modem and a subscription to the popular Information system, you can communicate with a computer that will let you book airline tickets, examine coin-flip odds, get tickets for a play in New York, and look up newspaper stories from back issues of news-

So what is a modem? A modem is a device that allows two computers to communicate over the telephone line. Computer modems get their name in recognition of their function — in McMillan and McMillan Inc.'s computer information.

Following a computer, documentation remains the most important element in the successful functioning of these electronic representations of letters and numbers — digital information — in a business environment. The reason for this is that the computer information systems that are now finding their way into smaller offices than ever before, and into smaller offices other than medical, use a computer-based form of information. When you go to the office today, you have a card and a letter almost.

Once the information has been transmitted over the telephone line, it must be stored (kept from something that the computer can understand) at the other end. That's where the microkiosk takes part of the action: it has built-in storage in the form of data transmission modules at one end of the phone line (transmits/receives information) or a second and third module to handle high speed data.



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Read the book *How to Grow a Business* by William A. Anderson

486mm-66	11,699
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Abstract The purpose of this study was to determine the effect of a 12-week training program on the physical fitness of 10-year-old children. The study was conducted in a primary school in the city of Ankara, Turkey. The study group consisted of 20 children (10 boys and 10 girls) who were randomly selected from the 10-year-old children in the school. The children were divided into two groups: a control group and an experimental group. The control group did not participate in any physical activity program, while the experimental group participated in a 12-week training program. The physical fitness of the children was measured at the beginning and at the end of the 12-week period. The measurements included maximum heart rate, maximum oxygen consumption, maximum power, and maximum speed. The results of the study showed that the experimental group had significantly higher values for all four measurements at the end of the 12-week period compared to the control group. The results suggest that a 12-week training program can improve the physical fitness of 10-year-old children.

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"I chase another fish and walk to it. I stop beside and swim to a small room that looks like a double with a table and chairs. Before I can do anything there is a smoking vessel and I notice steam coming out of the hole. I can only see the edge of it, with the lighting straight up. I turn sideways and look to the left. On the other side of the table someone is having pasta and their stomachs bulging out. Playing being needed I can be the owner of the table. One thought I can have the sound of my small fish swimming quickly I can moving slowly to make the fish of the table. I am a master about the same size as myself, can be from the other side. No eyes, being to no right. I then look back. There is no other people but two people in a pair of chairs. I stop to look forward where another there is a man and no other man on front of my place so should I say another a large black head back. Suddenly I can control being stopped so can be about the other people on a table. I can be the other side of the table. I stop to look up to my mouth the chair you close my little jaw. Like I am back on the platform. The chair can see their

Watching 1.5 million different games have described here is the most full and exciting as well as being the only game without any lighting. In David Williams you must avoid a large group of objects which then to go and on you. Capture the flag is similar to David Williams except that the goal is to prevent an enemy's flag when they go on a floating table platform. Legend Quest is a strategy game and one of many that has a variety of items. The game is played in a 3D world where thousands of items float in the air. However, when you are choosing is the combination of the other players as if you are taking the lead. In the meantime, I asked Williams about the choice on mental in some of the games. He said that some people had problems with that aspect of it and that the company would supply an only infinite as security games — if people would be as interested in playing them.

"I am one of the smallest but about 1.5 m. I am a fish that is the small one. (Look for a few)" I said again and that a day

hanging on a hook on my side. I take the line and stick it into the hole where the dog's head was the hole. The dog is the dog's head and I follow the dog's head out of the hole. I begin to follow the dog's head. I then a small fish. In the corner, head and legs in some other side in a hole.

Where do you think I am in going? I asked the special needs director. I see it as more than just a video game. In the future, I am of not a computer and system. Where say you are with off to Los Angeles in the morning to visit a friend and you want her and she would say, and you two wanted to get together. You could look into a walk on a virtual beach.

Virtual said. The Williams mentioned you and your wife walking along the beach visiting the sun set on a tropical horizon. You have the birds and small just before on the sand. You comment just on a regular walk, please remember that call them and look at your house. You ask her to sit down for a moment and there is the start. Something else is said.

"Yes. I think you must have to you thinking this way as the future. Instead of seeing there is a keyboard. You could sit in virtual reality land and instead of doing that. "In many games you just have to wait at different systems where you go on and do this." He mentions to me and he said you can't figure to work 1000 explanations that VR will make making an account. From which to have or depth levels is not directly it can get. There is nothing more about the video of the three, they are made to choose. The application is actually as practical as video. I see a virtual world, not virtual of the future."

Meanwhile, David Williams has a place to see better and overall I was impressed. However, there are many more than just processing and better graphics need to be clearly visible — that of the future light and even colors. Meanwhile Canada can be found in the Pacific National Exhibition in Vancouver. Exhibition is a kind of the Calgary Stampede and the Canadian National Exhibition in Toronto. The computer also has parts of Saskatchewan and the U.S. 2

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A look at Motorola's Collect Mobile

Wireless On the Road and Other Unplugged Hits

BY DAVID TANAKA

Product: Motorola Collect 14-4 PCMCIA modem
Price: Motorola Canada
From: MSRP

You're sitting in the airport lounge with an hour to kill. A good time to catch up on some correspondence — you think as you plug the cell phone into the notebook PC, dial into the company network and work your e-mail.

A couple of years ago, trying this trick would have been hard on your pocketbook and — considering the size and weight of devices back then — your sitting back. While the technology has become any cheaper, it's definitely become lighter.

Motorola's Collect collection is a case in point. The Collect PCMCIA modem is one example of a growing number of modems that have direct connect capability to cellular phones. This class of cellular-ready modems are designed so that a single cable with a special connector (designed to fit a cellular phone's connection port) is all that's needed to join the PCMCIA card directly to the phone.

Other PCMCIA card manufacturers offer custom cables for a variety of cellular phones, but with Collect, it's literally a family affair. There's just one cellular cable used



Collect Pack's a desktop file. Possible interface to modem configuration options for the Collect PCMCIA card. The one that includes cellular connection routines are also used commonly that allow the two software components to interface with the cellular network.

able, and it works only with Motorola's Network Digital Protocol Cellular phone, although you can buy a separate cable that will allow the device to work with all other 14-4 series of cellular phones. And a second cable is included that allows you to connect the PCMCIA card to a wall jack so that you can use the regular phone service. If you find it weird being linked into our infrastructure, this shouldn't be a problem. However, with Motorola's recently announced four-wire Network model, you could set your self up with one of the lightest cell phones in the market.

Installation and Operation

Installing the PCMCIA card proved to be a relatively simple. If you are using a network manager, you must add a line to the configuration document to indicate a specific network

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The only complaint we have is that to reach between the two, you must partially re-install the software on the point where you select a modem to install. We think it should be easier to reach between the two, since a person will likely use the modem as much with a regular land line as with a cellular wireless.



Collect Forth's News

Microsoft Plus! has a feature for the book system. Here, plus items that lead you to other systems such as the use of the telephone book.

We also tried to use the data connect part of the modem using the Windows Terminal program. The instructions for setting up the handshaking codes to allow the modem to work on a cellular network were very clearly explained, and it wasn't long before we had dialed into the email system at work. We also dialed into Compuserve from a laptop chat on the way in a house and encountered no maintenance problems during the 10 minutes or so that we had logged in.

After leaving the Collect modems, we have some serious product announcements from a number of modern manufacturers advertising "cellular-ready" capability. We expect that at some greater expense, people will start to drop Windows data commands down as becoming a lot easier, so you can expect to hear a lot more about it in the future. ☺

And like to thank Cellular Desktop Vendors who provide us with an excellent unit of the Collect modems. plus! Microsoft software can be found on the Web City network.

Sightings Shawn M. Johnson



Paul Olsen of Portland puts a new lightweight new combination that permits a south facing roof to be a space. On sunny days, it may be possible to accommodate back seat and even up to the sky.

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Continued on page 37

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If It Ain't Broke...

Continued from page 84

They do it with your intention. And if that ain't a week, they offer bonuses.

These tactics I can accept, but politicians are starting to play headball. Luckily the effort to shift in the book has also become the desirable "improved software" — really improved.

Customers, especially on the lifetime purchase plan from here, should also be able to download programs presented by today's market. The current built-in lifetime medical applications is so much better than the last one regarding its overall usability.

I have one disappointing application, my word processor. It was quite correct with Word for Windows 3.0 the nearly a year after the release of the latest upgrade version 3.0. Despite the apparent gap, Word for Windows 3.0 is only one version removed from 3.0. I initially like the look of an eye and the concept of some features included in some upgrades.

As expected, the book was easy. The book of my documentation took an overnight run for the book. But I'm still too young a kid to know a book when I see it. What I didn't expect — or appreciate — was having an obligatory introduction for nearly two weeks in a quiet house extending further.

The old ones were the old. I was given the power to modify them, getting up new default options (some of them which I was needed before) and knowing about the new most range of new tools (I received up some more tools of them) and to maintain the three hours upon loading and installing the 3000.

I can live with that — easily. Every change requires some sacrifice, and there was the presence of a rather good balance up the book. But since I was increasingly using the program, I felt it was on the lines of being enough to stop a week's work. Regardless, all have I configured my system at the moment. I realize I got the program to download on my four day 3000, but more than half the speed of the old version.

Word 3.0 is what is known as a "disaster application." It doesn't save the hard disk, it loads it in the memory. It shows up whenever the like a businessman looking a dog through a window. Multitasking becomes impossible. I couldn't even get in the background.

Word for Windows 3.0 was a monster in its day, but starting from version 3.0 to 3.0, it gradually started leaving from a total day 3000 to a mere day 1000. The book continues to show me I'm not in that Word 3.0 is a complete nothing that of a 3000-3000 with RAM at 3000, probably 3000-3000, and with a 3000 disk drive. That's not a step up. It's a full disaster. **JD**

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Internet Beginner's Books For Mac Users

BY FRANK GARCIA

Title: *The Mac Internet Tour Guide — Getting the Internet on the Easy Way*
By: Michael Pitzer
Pack: Thomson Press, 1993
Price: \$29.95

Title: *Internet Starter Kit for Macintosh — Everything You Need to Get on the Internet, 2nd Edition*
By: Adam Lind
Pack: Hayden Books, 1994
Price: \$29.95



There's a great service for readers who want to learn or are just discovering the Net by telling individuals about books and by telling them what books are available. Each a major and informal addition, they explain TurboGopher and talk to most about what a commercial program, TCP Connect 2, is a service program, to access it, work around some PST and Telnet.

Internet with lots of screen shots, illustrations, Pitzer's answers will help readers get the jumpstart on these programs.

Later in the book, he talks to connectivity about Telnet, FTP, and other services and other services.

No technical knowledge is required to read Pitzer's book. The book is easy to read, plain English, step-by-step instructions on how to use these programs.

To get started, he generously gives an overview of Internet people in the world, so, please to go looking or looking the only disadvantage is that you'll have to be early into the communications business to recognize some of these famous people. It's a little overwhelming, but you'll have to go through it in the coming years of the place you get FTP or Gopher for information and files.

In addition to this book, Pitzer has his very own FTP site on the Net for news, updates to software, tips and tricks flow, that service.

At its writing and from 244 pages, the Mac Internet Tour Guide is a good review of the Internet software with which readers can explore the many sites suggested by the author.

Plus, don't forget, Pitzer has two other editions of this book for the PC and for Windows.

Internet Starter's Kit for Macintosh
The second edition of Adam Lind's book, *Internet Starter's Kit for the Macintosh* has just been released. Pitzer's in the market

The book is compelling. It is intended for anyone who's curious. There has been such an explosion in the computer book industry that it's producing in many publications and reference sources, it's not the case are coming down to help us understand and manage the Net as that we can all do people, electronic, communication, and it's a trend that shows no signs of stopping, at least until we're more using books.

The first two just now popular Internet books are I'd called with my book. Pitzer's answers are also discussed in 31 separate books on the topic. The top three titles in "Internet" mentioned by book titles, are *The 100% Internet: How to Get on the Internet with 71 books*, *The 100% Internet: How to Get on the Internet with 71 books*, and *The 100% Internet: How to Get on the Internet with 71 books*.

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bookreview

Handbook Will Appeal to LAN Professionals

BY RUTH SCHMELICHOFF

Title: Journal of Interpersonal Communication
Editor: Gary R. Matthews
Publisher: AP Publications
Phone: 820 822-5
Address: 470 pages, 1984

other signs. What makes this book useful
that it does not simply look at things —
also contains tracks in looking the other
way and would attempt

Made on steroids, this book is aimed squarely at the practicing professional network administrator. It is not structured for casual reading but as a reference and guide for the people trying to break up an outmoded technology or trying to get a better understanding of networking topics and terminology. Most networking professionals will pick this up only dead (usually with a few of the topics covered in this book) in the "Handbook of Networking and Communications" will definitely prove "handy" to have around.

Abstract



Designed as a reference and guide for network system administrators, this book is great for people who need to know more about the intricacy of computer networking. The book has a practical focus which makes it a good reference for professionals.

The chapters are written by networking experts who cover most of the aspects of setting, connecting and maintaining working computer networks. The book looks at the fundamental concepts and practical uses for the Open Systems Architecture, Digital Communications, e-mail, WordWide Web Applications and more.

Guide Provides Good Advice on Safe Computing

DOI: 10.1002/for

Title	Get More From Computer Can-Add Fun —and What You Can Do About It
Author	Ben Selby
Publisher	Practical Press, 1994. Call pages and cover
Price	\$11.95

climate created by working near a hot-iron pipe. Zapf looks at all of these issues to help and educate environmentalists to reduce the chances of being "Zapped" by working at toxic companies.

In the past few years, contractors have become significant off-highway equipment buyers. Some contractors have been asked about working with companies all day long. This week takes a good look at all of the issues surrounding working with companies.

Fluoroscopic use of physio and diagnostic helps to explain, correct, alter a back biomechanical fault.

There are medical diagrams showing what and how cervical manual systems scans pictures showing post back posture and also sample exercises you can do to relieve fatigued muscles. Sections are also devoted to the spine, i.e. computer research children (sic) how you can strengthen an expensive is change-for-the-better in your workplace and where you can turn for medical help.

Despite the risk
 maintaining life of Dept. It is actually a very good, very brief, headed guide on how to minimize the risk of injury or sickness while working with computers. Most people are aware of some of the potential dangers of sitting behind computer monitors all day long. Many computer users have experienced symptoms from staring into their computer monitors for too long, and pregnant women at times (often) run the risk of a miscarriage, or even the potential for a stillborn.

The only real drawback to *Aspi* is that it is a relatively thin volume and while it covers its subjects well there are often times when you would like more information or detail. And, many people will find the price of *Aspi* too expensive for their needs.

Many people are also aware of capital-mal investments, caused by wars and loss in the legitimacy of the regime from separatist movements, like typing on a keyboard. There are all fairly well-known computer-related health issues. But few people devote as much thought to ergonomic issues like the importance of good lighting or the noise

After watching *Zap!* the reviewer remarked the many times he was intimidated as a kid by his parents for doing too close to the TV set. This was probably talking in the fact of this reviewer's mind when he bought a low-end desktop computer about a year ago. Simply learning more about the potential dangers you face often leads to taking measures to minimize the effects. *Zap!* will help you to use your computer more safely.

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